

Income and Living Standards During Unemployment

Martin Browning

Purpose

This brief summarizes the study that Professor Martin Browning of McMaster University prepared for HRDC. The study is a component of a major evaluation of the UI regular benefits program in Canada. It focuses on the impacts of UI benefit cuts on incomes and material living standards. The information for the empirical work is based on the data collected by the Canadian Out of Employment Panel (COEP) Survey, conducted by Ekos Research Associates on behalf of HRDC. Although the data set records primarily the pre and post Bill C-113 experiences of unemployed individuals, the study goes beyond the evaluation of the impacts of Bill C-113. It attempts to shed some light on the implications of UI benefit rate reduction on UI recipients' livelihood under more general circumstances.

Background

In April 1993, Bill C-113 introduced two important changes to Canada's regular unemployment insurance system: (1) voluntary quitters without just cause were disentitled from UI receipt, and (2) the benefit replacement rate was cut from 60 to 57 percent for UI recipients. Obviously, both changes could affect the material well-beings of those individuals who have experienced a job separation since that time. This study

examines the relationship between the level of benefit and income and living standards. The analysis covers only those individuals who were still in their first spell of unemployment at the first interview of the COEP Survey, i.e., approximately six months between the pre and post Bill C-113 period.

The study keeps the distinction between income and material well-being. Its rationale is that a short-run decrease in an individual's income does not necessarily translate into a drop in the material living standard for the whole household. In the short-run, a household may be able to run down its financial resources or to borrow money to maintain its living standard. Alternatively, some other members of the household may increase their income either by taking new jobs or by working longer hours in existing jobs. Even if the household finds that it must reduce its total expenditure in the short-run, this may not lead to a meaningful fall in material well-being. The household may reallocate its total expenditure among goods and services to keep material welfare nearly constant.

This study is an integral part of a large project that attempts to measure the impacts of Bill C-113 on UI recipients and labour market activities. The other parts of the project, reported in separate documents, deal with "the effect of voluntary quit disenitment on UI



takeup rates", "effects of benefit rate reduction on unemployment durations, search behaviour and new job quality", and "the interaction between UI and social assistance".

Data and Methodology

Professor Browning, along with his colleagues (Professors Steve Jones and Peter Kuhn), has been involved in the design of the Canadian Out-of-Employment Panel survey from the outset. The COEP is a survey of individuals separating from jobs, designed to supplement existing administrative data. It is of particular relevance to the evaluation of Bill C-113, because it consists of two cohorts, one experiencing a job separation between January 31 and March 13, 1993, and the other between April 25 and June 5, 1993. This affords the investigators a data set of quasi-experimental nature that can be used to gauge the impacts of the policy changes.

In addition to the COEP data, the author augments the income information with the tax information of gross earnings in the 1992 tax year and the insured earnings of the administrative records. From the COEP data, he extracts the income information from the answers to the survey's questions: "What was your total personal income in the past month after deductions?" and "What was the total income of your household this past month after deductions?" For consumption, he obtains his data from the answers to COEP's small number of tightly focused questions on consumption. The questions were designed to allow the construction of a measure of household expenditure on all items including housing. Subsidiary questions were also asked about housing expenditures to allow the construction of non-housing total expenditure. Questions concerning assets and debts and how the level of total consumption has changed since last job separation were also asked.

The study attempts to establish the relationship between UI benefit and income, and the relationship between UI benefit and the material living standard of the unemployed. This requires the study to classify the unemployed individuals of the COEP survey into three groups: (i) a "no UI benefit" group, (ii) the "reference" group who received UI with a replacement rate of 60%, and (iii) the "low benefit" group who received benefits with a replacement rate of 57%. The analysis covers personal income, household income, household total consumption and consumption-allocation patterns.

The study uses descriptive statistics and regression analysis (including ordinary least squares and probit analysis). The specifications of the econometric equations pay special attention to their conceptual and logical consistency. This is particularly important to the empirical work on living standards during unemployment. The COEP survey data cover only "food at home", "food outside the home", "clothing" and "total consumption". Since the three consumption components are integral parts but do not add up to "total consumption", this presents a technical challenge. The report has an extensive discussion on the merits and demerits of three feasible approaches to the empirical work on this topic. They are: (1) the direct method, which involves the use of regression methods (including the standard regression technique and probit analysis) to estimate the impacts of UI legislative changes on the three consumption components and total consumption directly; (2) the factor analytic method, which applies a specific technique of "factor analysis" to the available consumption data to construct a measure of "predicted total expenditures on consumer goods and services"; and (3) the structural method, which integrates methods (1) and (2).

Key Findings

The empirical evidence confirms that UI benefit rates significantly influence net personal incomes of UI recipients. *UI benefits form the major portion of income for those who receive it.* At the 60 percent benefit rate, net personal incomes of UI recipients are 68 percent and 61 percent of their pre-unemployment earnings for women and men respectively. At the 57 percent rate, the corresponding net personal incomes become 63 percent for women and 59 percent for men. This conclusion remains valid when the data are subject to econometric testing for statistical significance.

By gender, the impact of a UI benefit cut is harder on women than on men. Men generally have higher “other” sources of income and have higher marginal tax rates, which tend to cushion the blow of UI benefit reduction on personal and household incomes.

The significance of a UI benefit cut on UI recipients can be further illuminated by using the estimated equations to perform other calculations: *A 5 percent cut in benefits (e.g., the benefit replacement rate is cut from 60 to 57 percent) would lead to approximately a 3.5 percent reduction in the ratio of “current household income/pre-unemployment income”.*

For consumption, the empirical evidence shows that UI recipients’ consumption generally falls with a reduction in UI benefit rate. *The study estimates that a cut in the benefit rate from 60 percent to 50 percent would lead to a fall in household consumption between 3 to 6 percent.* This reduction applies across the three categories of goods expenditures (food at home, food outside the home, and clothing) as well as to total consumption.

As expected, the impacts of UI benefit reduction vary across different households. *Repeat users (e.g., three claims in the last five years) would have suffered more in their standards of living than those who do not claim UI benefits regularly.* Amongst households that have at least one member who is unemployed for six months or more, the following are the most vulnerable to UI benefit cuts: (i) households in which the unemployed person is the “major bread winner”, and (ii) households in which the unemployed person is a repeat user.

Biographical Notes

Martin Browning is a Professor of Economics at McMaster University since 1984. Previous appointments include Visiting Professor of Economics at Stanford University and Lecturer in Mathematical Economics at Bristol University. He did his graduate and undergraduate education at the London School of Economics. His current research interests include: household economic behaviour (savings, demand and labour supply); the economic effects of children; the within family allocation of resources and the behaviour of worker cooperatives.

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Copies of the full technical report (when finalised) and further copies of this summary are available from:

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